PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE RECONSTRUCTION OF THE TRAFFIC SIGNAL WITH LIGHTING AND EXCLUSIVE/PERMISSIVE FOR MD 190 IN MONTGOMERY COUNTY.

INTERSECTION OPERATION

1. NORMAL OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA EIGHT PHASE, FULL-TRAFFIC ACTUATED MODE, WITH THE MD 190 APPROACHES RUNNING CONCURRENTLY AND THE NEVIS RD. AND BEECH TREE RD. APPROACHES RUNNING CONCURRENTLY.

EAST AND WESTBOUND MD 190 WILL HAVE EXCLUSIVE/PERMISSIVE LEFT TURN PHASES.

AN ALTERNATE PEDESTRAIN PHASE WILL BE PROVIDED ACROSS THE EAST LEG OF MD 190.

SPECIAL NOTES

- 1. DISCONNECTING AND SPLICING OF INTERCONNECT CABLE SHALL BE PERFORMED BY MONTGOMERY COUNTY FORCES. THE CONTRACTOR SHALL RUN THE INTERCONNECT CABLE INTO THE BASE OF EACH CABINET AND PROPERLY TAG THE CABLE. CONTACT MR. ROBERT GONZALES AT 301-217-2182 SEVENTY-TWO HOURS IN ADVANCE OF THE INTENDED WORK,
- 2. UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL NOTIFY MR. ROBERT SYNDER OF SHA AT 410-787-7635 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. ROBERT SNYDER WITH THE NEAREST STREET ADDRESS, ZIP CODE, AND PHONE NUMBER.

PROJECT CONTACTS

THE CONTACT PERSONS FOR DISTRICT #3 ARE AS FOLLOWS:

MR. CHARLIE WATKINS DISTRICT ENGINEER PHONE: 301-513-7311

MR. AUGIE RUBISH ASSISTANCE DISTRICT ENGINEER-UTILITY PHONE: 301-513-7350

MR. MAJIB SHAKIB ASSISTANCE DISTRICT ENGINEER-TRAFFIC PHONE: 301-513-7358

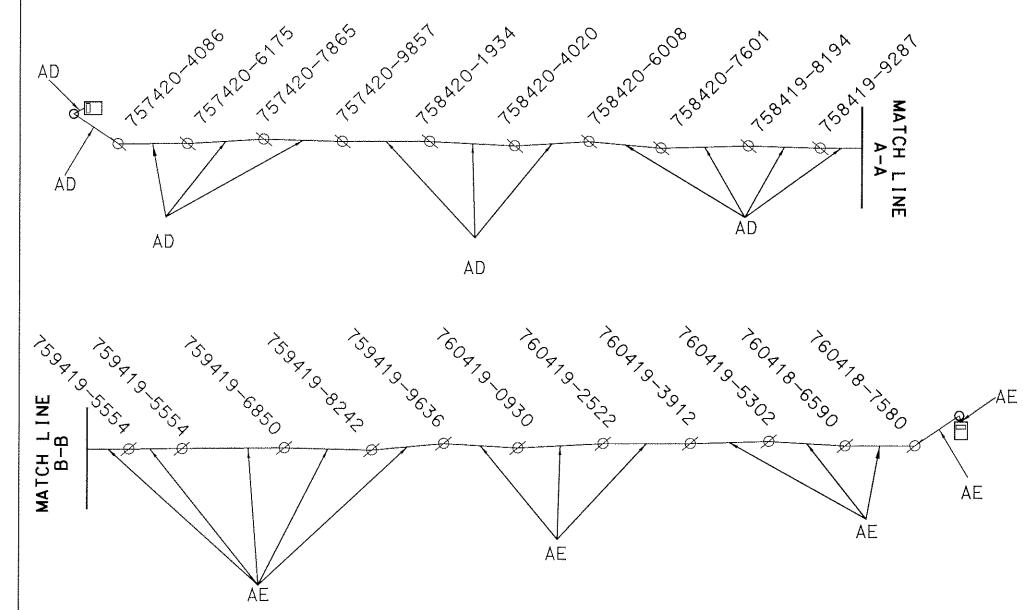
MR. RICHARD L. DAFF, SR. CHIEF, TRAFFIC OPERATION DIVISION PHONE: 410-787-7630

MR. RANDY BROWN ASSISTANCE DISTRICT ENGINEER-MAINTENANCE PHONE: 301-513-7304

EQUIPMENT LIST

A. EQUIPMENT TO BE SUPPLIED BY THE SHA.

ITEM	QUANTITY		DESCRIPTION
9000	2	ËÀ	12 INCH 1 WAY 2 SECTION SIGNAL SIDE OF POLE MOUNT
9002	2	ĒĀ	(CONT/CAB/ADD) DETECTOR AMPLIFIER 4-CH RACK MT
9003	1	ĒA	(CONT/CAB/ADD) DETECTOR RACK
9004	1	ĒĀ	(CONT/CAB/ADD) DETECTOR RACK POWER SUPPLY
9014	6	ĒĀ	(MAST ARM MT) 12" 1-WAY, 3-SECTION SIGNAL (ALUMINUM)
9016	2	ĒĀ	12" ONE-WAY, FIVE-SECTION (R,Y,G,YA,GA) ALUMINUM SIGNAL HEAD
3010	<i>د</i> ۔	L/\	- MAST ARM MOUNT
9019	2	EA	COMBINATION ONE-WAY, FIVE-SECTION 12" (YA,GA) AND 8" (R,Y,G)
3013	<i></i>	L	ALUMINUM SIGNAL HEAD - MAST ARM MOUNT
9022	2	EA	(MAST ARM MT) 8" 1-WAY, 3-SECTION SIGNAL (ALUMINUM)
9084	1	EA	CABINET MONTGOMERY CO. W/ LAU, SIZE 6
9087	1	EA	CONTROLLER ASC II W/ TELEMETRY
9096	2	EA	PUSHBUTTON AND SIGN (R10-4, PUSH BUTTON TO CROSS RIVER RD)
9089	8	SF	R3-5R (RIGHT TURN ONLY) (30"X36") 1EACH MAST ARM MOUNTED
9089	11	SF	R10-12 (LEFT TURN YIELD ON GREEN BALL) (36"X42") 1 EACH
			MAST ARM MOUNTED
9089	11	SF	SHIELD ASSEMBLY (EAST, MD 190, RIGHT ARROW) (30"X51")
			1 EACH POLE MOUNTED
9089	11	SF	SHIELD ASSEMBLY (WEST, MD 190, RIGHT ARROW) (30"X51")
			1 EACH POLE MOUNTED
9089	25	SF	SHIELD ASSEMBLY (EAST, MD 190, LEFT ARROW) (48"X75")
			1 EACH POLE MOUNTED
9089	25	SF	SHIELD ASSEMBLY (WEST, MD 190, LEFT ARROW) (48"X75")
			1 EACH POLE MOUNTED
9089	36	SF	W3-3 (SIGNAL AHEAD) (36" X 36") 4 EACH GROUND MOUNTED)
9090	54	SF	D-3(1) (NEVIS RD <7500 / BEECH TREE RD 7600>) (VAR.X32")
			2 EACH MAST ARM MOUNTED
9090	54	SF	D-3(1) (BEECH TREE RD <7600 / NEVIS RD 7500>) (VAR.X32")
			2 EACH MAST ARM MOUNTED



B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR.

DESCRIPTION

MAINTENANCE OF TRAFFIC

1 EA

2001	3 CY	TEST PIT EXCAVATION
5003	470 LF	12 INCH WHITE PERMANENT PREFORMED PAVEMENT MARKING TAPE
5004	135 LF	24 INCH WHITE PERMANENT PREFORMED PAVEMENT MARKING TAPE
5013	535 LF	REMOVE EXISTING PAVEMENT MARKINGS - ANY WIDTH
8001	13 CY	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
8008	1 EA	FURNISH AND INSTALL 3 INCH WEATHERHEAD
8011	14 EA	INSTALL SIGNAL HEAD (ANY TYPE)
8018	2 EA	INSTALL PUSHBUTTON AND SIGN
8020	1 EA	INSTALL CONTROLLER AND CABINET - BASE MOUNT
8021	545 LF	FURNISH AND INSTALL SAWCUT FOR SIGNAL (LOOP DETECTOR)
8023	20 LF	FURNISH AND INSTALL 1 INCH LIQUID TIGHT FLEXIBLE NON METALLIC CONDUIT
0023	20 21	FOR DETECTOR SLEEVE
8024	10 LF	FURNISH AND INSTALL 2 INCH SCH 80 RIGID PVC CONDUIT - TRENCHED
8027	20 LF	FURNISH AND INSTALL 3 INCH SCH 80 RIGID PVC CONDUIT - TRENCHED
8028	115 LF	FURNISH AND INSTALL 3 INCH SCH 80 RIGID PVC CONDUIT - SLOTTED
8030	50 LF	FURNISH AND INSTALL 4 INCH SCH 80 RIGID PVC CONDUIT - TRENCHED
8032	165 LF	FURNISH AND INSTALL 4 INCH SCH 80 RIGID PVC CONDUIT - BORED
8033	5 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8034	4 EA	FURNISH AND INSTALL GROUND ROD -3/4INCH DIAMETER X 10 FOOT LENGTH
8038	4,770 LF	FURNISH AND INSTALL 12-PAIR COMMUNICATION CABLE SELF-SUPPORTING (OVERHEAD)
8040	2,195 LF	FURNISH AND INSTALL LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO 14 AWG)
8041	1,235 LF	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (ALUMINUM SHIELDED)
8042	215 LF	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (NO 14 AWG)
8043	226 LF	FURNISH AND INSTALL ELECTRICAL CABLE - 3 CONDUCTOR (NO 14 AWG)
8044	85 LF	FURNISH AND INSTALL ELECTRICAL CABLE - 5 CONDUCTOR (NO 14 AWG)
8045	1.580 LF	FURNISH AND INSTALL ELECTRICAL CABLE - 7 CONDUCTOR (NO 14 AWG)
8046	315 LF	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (NO 12 AWG) TYPE "TC"
8049	215 LF	FURNISH AND INSTALL NO 6 AWG STRANDED BARE COPPER GROUND WIRE
8052	68 LF	FURNISH & INSTALL WOOD SIGN SUPPORTS 4 INCH x 6 INCH
8053	36 SF	INSTALL GROUND MOUNTED SIGN
8054	207 SF	INSTALL OVERHEAD SIGN
8056	2 EA	FURNISH AND INSTALL 250 WATT HPS LUMINAIRE WITH PHOTOCELL
8057	2 EA	FURNISH AND INSTALL LIGHTING BRACKET ARM FOR TRAFFIC SIGNAL STRUCTURE
8058	5 EA	REMOVE AND DISPOSE OF EXISTING FOUNDATION 12 INCHES BELOW GRADE
8059	1 EA	REMOVAL OF EXISTING CONTROLLER, CABINET AND GALVANIZED SIGNAL STRUCTURE
8060	1 EA	DELIVERY OF REMOVED CONTROLLER, CABINET AND GALVANIZED SIGNAL STRUCTURE
8061	1 EA	REMOVE AND DISPOSE OF EXISTING MATERIAL AND EQUIPMENT PER ASSIGNMENT
8070	1 EA	FURNISH AND INSTALL CONTROL AND DISTRIBUTION EQUIPMENT
		(120/240V 1PHASE 3 WIRE SYSTEM)
8081	1 EA	FURNISH AND INSTALL STEEL POLE WITH A SINGLE 38 FOOT MAST ARM
8084	1 EA	FURNISH AND INSTALL MAST ARM POLE AND 70 FOOT MAST ARM
8086	1 EA	FURNISH AND INSTALL MAST ARM POLE AND TWIN (50 FT / 70 FT) OR
		70 FT / 50 FT) MAST ARMS

C. EXISTING EQUIPMENT TO BE REMOVED BY THE CONTRACTOR AND DELIVERED TO THE STATE HIGHWAY ADMINISTRATION. 7941 CONNELLEY DRIVE, HANOVER, MARYLAND 21076.

QUANTITY DESCRIPTION 12" X 30' STEEL STRAIN POLE CONTROLLER AND CABINET NOTES: 1. ALL EQUIPMENT TO BE REMOVED AND NOT LISTED ABOVE

SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

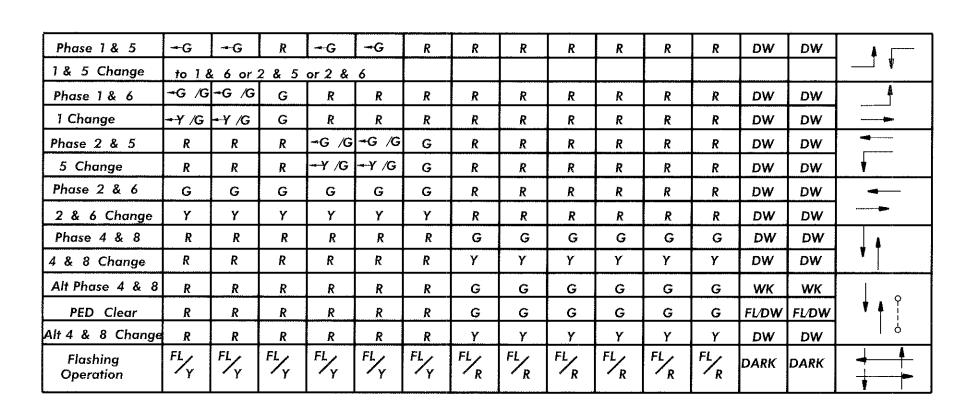
2. THE CONTRACTOR SHALL NOTIFY THE SHA AT (410) 787-7652 AT LEAST THREE DAYS IN ADVANCE OF DELIVERY.

REVISIONS APPROVALS ASST. DIVISION CHIEF, TEDD BRUDIS & ASSOCIATES, INC. ASST. DISTRICT ENGINEER, TRAFFIC 9220 RUMSEY ROAD; SUITE 210 CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION COLUMBIA, MARYLAND 21045 (410)-884-3607

RECTOR, OFFICE OF TRAFFIC & SAFET

WIRING DIAGRAM MD WIRING KEY A,B,C,D, -M,N,Y,AA- 2 CONDUCTOR ELECTRICAL CABLE (#14 AWG) ALUMINUM SHIELDED E,F,G,H M, N, Y, AA-W.X - 2 CONDUCTOR ELECTRICAL CABLE -O,P,U,W,AB (#14 AWG) - 3 CONDUCTOR ELECTRICAL CABLE A,B,C,D, (#14 AWG) — M, N, Y, AA, 🐂 0,P,U,W I,J,K,L - 5 CONDUCTOR ELECTRICAL CABLE (#14 AWG) M,N,O,P, - 7 CONDUCTOR ELECTRICAL CABLE Q,R,S,T (#14 AWG) Y,Z - 2 CONDUCTOR ELECTRICAL CABLE (#12 AWG) A,B,C,D,E,F, AA, AB, AC - STRANDED BARE COPPER M,N,Y,AA,R-**-**GROUND WIRE (#6 AWG) 0,P,U,W K, Q, R ---- 12 PAIR COMMUNICATION CABLE OVERHEAD SELF-SUPPORTING Q,R,S,T, V, X, Z, ___ LW - LOOP WIRE (#14 AWG) AC, AD, AE - PROPOSED OVERHEAD POWER SOURCE A,B,C,D, E,F,G,H,AD,AE $-3_{4}'' \times 10'$ GROUND ROD M, N, O, P, Q,R,S,T, U,V,W,XQ Y,Z,AAL,S,T B-HOI PS, AD

PHASING SEQUENCE CHART



MARYLAND DOT - STATE HIGHWAY ADMINISTRATION Office of Traffic & Safety

TRAFFIC ENGINEERING DESIGN DIVISION GENERAL INFORMATION SHEET

MD 190 & BEECH TREE / NEVIS ROAD

TS-2540C MONTGOMEŘY

SHEET NO.

DATE 11 / 3/ 97 DRAWN BY: R. MILSTEAD CHECK BY: T. BRUDIS AW277AASC/BSC SHEET NO .: S.H.A. NO. NONE

REGION NO.